REMARKS

Rejection of claim 1 is maintained under 35 U.S.C. § 102(b) over Di Zenzo reference. The method of claim 1 includes identifying a representation of a binary image in a pixel matrix, wherein the pixel matrix comprises a plurality of portions. Furthermore, claim 1 involves computing the number of runs and number of neighboring runs. In addition, the Euler number is computed from the number of runs and the number neighboring runs. It is suggested that a binary image representation in a pixel matrix is disclosed in the Di Zenzo reference and the binary image inherently comprises of a pixel matrix having "0" and "1" elements. In addition, runs of 1s in a column/row (run presentation) are considered as a pixel matrix.

However, the Di Zenzo reference suggests a variant of a binary image representation based on run-length encoding. This variant allows building a "graph representation" for a number of computing tasks like computation of Euler number. In other words, Di Zenzo suggests a "graph representation" of binary images, exploiting their graph structure, which is specifically useful, when the image is line-like. Therefore, the Di Zenzo reference fails to teach a pixel matrix based computing of Euler number of a binary image, and there is no teaching of identifying a representation of a binary image in a pixel matrix wherein the pixel matrix comprises a plurality of portions. Accordingly, claim 1 is not anticipated by the Di Zenzo reference.

The Examiner indicates that the above set forth teachings are present in Section 1, Introduction, and in Figures 1 and 2 of the Di Zenzo reference. In the Introduction, a binary image is simply defined. For example, a binary image may be completely specified by a linked list of its run. This representation is known as the run representation. Specifically, the Di Zenzo reference merely teaches a variant of a binary image representation, namely "graph representation." For instance, Figure 1 shows a binary image as a multi-graph. In particular, Figure 1a represents a generic binary image as the collection of its runs and Figure 1b represents the corresponding graph. While Figure 2a shows local extrema of a region boundary in the x direction, the Figure 2b shows a digitized version of Figure 2a. In this manner, the Section 1,

Introduction or Figures 1 and 2 do not teach a pixel matrix based computing of the Euler number of a binary image, as claimed in claim 1.

More so, the binary image is not inherently shown comprising a pixel matrix having "0" and "1" elements. To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. In re Robertson, 169 F. 3d 743, 745, 49 USPQ 2b 1949, 1950-51 (Fed. Cir. 1999).

Therefore, in view of the above indicated remarks, the Applicants respectfully submit that the Examiner reconsider § 102 rejection of claim 1. Allowance of claims that depend from claim 1 is also respectfully requested of the Examiner. At least for the same reasons as set forth above in the context of claim 1, claims 2-3, 7-8 and 10-14 are also patentably distinguishable over the cited art. The Examiner is respectfully requested to consider all pending claims.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,

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